

# TF4

## In-Tank Filter Assembly

Ideal for installation on the return line to remove contaminant ingested or generated by the system.

**Max Operating Flow: 40 gpm (151 lpm)**

**Max Operating Pressure: 100 psi (6.9 bar)**

Donaldson  
HY-PRO™

[hyprofiltration.com/](http://hyprofiltration.com/)



## Elements that go beyond industry standard.

Donaldson Hy-Pro's DFE rated G8 dualglass elements are rated to assure performance even when exposed to the toughest conditions that hydraulic systems can generate. Designed to provide the best filtration and ease of use, the HP4C coreless element gives you more options for disposal, meaning you improve your environmental impact *and* your bottom line.



## Works with your system.

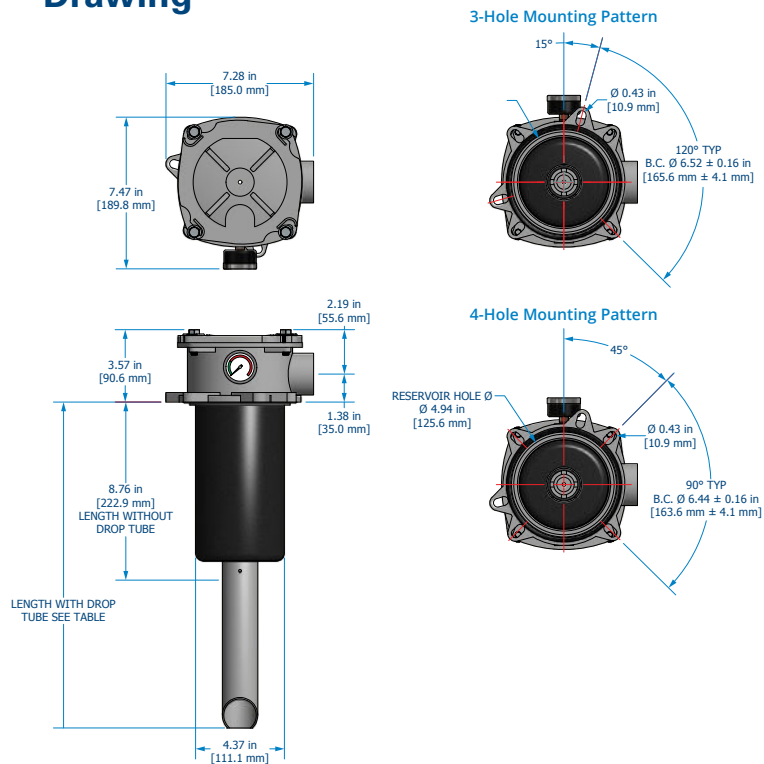
Available with one or two inlet ports (180° orientation) for maximum flexibility of installation, you'll be amazed at how easily the TF4 integrates into your system. For applications requiring AIAG HF4 automotive standards compliance, the H4 special option incorporates the HPK filter element to ensure you meet compatibility requirements and exceed efficiency expectations.

## Minimize the mess.

With most of the assembly inside the reservoir, the top loading housing on the TF4 provides easy and clean access when servicing or changing the element. To top it off, keyways on the twist open cover require only loosening of the bolts to access the element so lost parts during service becomes a thing of the past.



## TF4 Installation Drawing



## The perfect fit.

Coming in at just over 7" (185 mm) in diameter, the TF4 is the perfect compact solution for keeping your mobile equipment or power units operating at peak performance. And with mounting patterns to fit both North American and European formats, you'll get clean oil and increased efficiency no matter where you are.

Drop Tube Option	Length including Drop Tube
4" Nominal Extension	14.3" (363 mm)
6" Nominal Extension	16.3" (414 mm)
8" Nominal Extension	18.3" (465 mm)
9" Nominal Extension	19.3" (490 mm)
10" Nominal Extension	20.3" (516 mm)
12" Nominal Extension	22.3" (566 mm)

# TF4 Specifications

Dimensions	See Installation Drawings for model specific dimensions.										
Operating Temperature	<b>Fluid Temperature</b> 30°F to 225°F (0°C to 105°C)				<b>Ambient Temperature</b> -4°F to 140°F (-20C to 60C)						
Operating Pressure	100 psi (6.9 bar) maximum										
Pressure Switch Trigger	22 psi (1.5 bar)										
Element Collapse Rating	<b>HP4CL9</b> 150 psid (10.3 bard)				<b>HPKL9</b> 290 psid (20 bard)						
Integral Bypass Setting	25 psid (1.7 bard)										
Materials of Construction	<b>Head</b> Cast aluminum				<b>Bowl</b> Polyammide						
Media Description	<b>M</b> G8 Dualglass, our latest generation of DFE rated, high performance glass media for all hydraulic & lubrication fluids. $\beta_{x_{[C]}} \geq 4000$		<b>A</b> G8 Dualglass high performance media combined with water removal scrim. $\beta_{x_{[C]}} \geq 4000$		<b>W</b> Stainless steel wire mesh media $\beta_{x_{[C]}} \geq 2$ ( $\beta_x \geq 2$ )						
Replacement Elements	To determine replacement elements, use corresponding codes from your assembly part number: <table><tr><td><b>Configuration</b> Standard Filter Element Special Option H4</td><td><b>Filter Element Part Number</b> HP4CL9 – [Media Selection Code] [Seal Code] HPKL9 – [Media Selection Code] [Seal Code]</td><td><b>Example</b> HP4CL9–10AV HPKL9–6MB</td></tr></table>								<b>Configuration</b> Standard Filter Element Special Option H4	<b>Filter Element Part Number</b> HP4CL9 – [Media Selection Code] [Seal Code] HPKL9 – [Media Selection Code] [Seal Code]	<b>Example</b> HP4CL9–10AV HPKL9–6MB
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Fluid Compatibility	Petroleum and mineral based fluids (standard). For polyol ester, phosphate ester, and other specified synthetic fluids use fluorocarbon seal option or contact factory.										
Filter Sizing <sup>1</sup>	Filter assembly clean element $\Delta P$ after actual viscosity correction should not exceed 10% of filter assembly bypass setting. For applications with extreme cold start condition contact Donaldson Hy-Pro for sizing recommendations.										
$\Delta P$ Factors <sup>1</sup>	Units	Media 1M	3M	6M	10M	16M	25M	**W			
	psid/gpm	0.2370	0.2000	0.1550	0.1390	0.1360	0.1310	0.0240			
	bard/lpm	0.0043	0.0036	0.0028	0.0025	0.0025	0.0024	0.0004			

<sup>1</sup>Max flow rates and  $\Delta P$  factors assume  $u = 150$  SUS, 32 cSt. See filter assembly sizing guideline for viscosity conversion formula on page 22 for viscosity change.

# TF4 Part Number Builder

TF4    -  -

Connection Bypass Indicator Special Options Media Seal

Connection	Port Option	Max Flow Rate
	<b>G20</b> 1.25" BSPT	40 gpm (151 lpm) <sup>1</sup>
	<b>N20</b> 1.25" NPT	40 gpm (151 lpm) <sup>1</sup>
	<b>S20</b> 1.25" SAE	40 gpm (151 lpm) <sup>1</sup>

Bypass	<b>2</b>	Integrated bypass - 25 psid (1.7 bard)
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Pressure Indicator	<b>DX</b>	Electric pressure switch (DIN connection)
	<b>E</b>	Electric switch with flying leads (3-wire connection)
	<b>G</b>	Visual pressure gauge
	<b>X</b>	No indicator (port plugged)

Special Options	<b>D2<sup>2</sup></b>	Dual inlet ports, 180° orientation
	<b>H4<sup>3</sup></b>	HPK series element for automotive standards compatibility
	<b>4</b>	4" (10 cm) nominal drop tube extension
	<b>6</b>	6" (15 cm) nominal drop tube extension
	<b>8</b>	8" (20 cm) nominal drop tube extension
	<b>9</b>	9" (23 cm) nominal drop tube extension
	<b>10</b>	10" (25 cm) nominal drop tube extension
	<b>12</b>	12" (30 cm) nominal drop tube extension

Media Selection	G8 Dualglass	G8 Dualglass + water removal	Stainless wire mesh
	<b>1M</b> $\beta_{3(c)} \geq 4000$	<b>3A</b> $\beta_{4(c)} \geq 4000$	<b>25W</b> 25μ nominal
	<b>3M</b> $\beta_{4(c)} \geq 4000$	<b>6A</b> $\beta_{6(c)} \geq 4000$	<b>40W</b> 40μ nominal
	<b>6M</b> $\beta_{6(c)} \geq 4000$	<b>10A<sup>3</sup></b> $\beta_{11(c)} \geq 4000$	<b>74W</b> 74μ nominal
	<b>10M<sup>3</sup></b> $\beta_{11(c)} \geq 4000$	<b>25A</b> $\beta_{22(c)} \geq 4000$	<b>149W</b> 149μ nominal
	<b>16M</b> $\beta_{16(c)} \geq 4000$		
	<b>25M</b> $\beta_{22(c)} \geq 4000$		

Seals	<b>B</b>	Nitrile (Buna)
	<b>V</b>	Fluorocarbon
	<b>E-WS</b>	EPR seals + stainless steel support mesh

<sup>1</sup>Maximum recommended flow rate based on velocity through port and internal flow path. Consult sizing guidelines or consult factory for sizing based on flow rate, viscosity, temperature, filter media selection.

<sup>2</sup>Available with S4 port only.

<sup>3</sup>Replaces standard HP4C series element with HPKL9. Use 12M or 12A for respective media code in place of 10M or 10A.

For all up to date option details and compatibilites, please reference our Contamination Solutions Price List or contact customer service.

Want to find out more? Get in touch.

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